

U.S. Application Serial No. 10/714,439
Response to June 7, 2005 Office Action
Response Dated November 9, 2005

REMARKS/ARGUMENTS

Claims 1-8, 13-19 and 21-27 are pending in the application. Claims 9 and 20 and 10-12 are subject to a restriction requirement and therefore are withdrawn. Reconsideration and a withdrawal of all outstanding objections and rejections are hereby respectfully requested in view of the above amendments and the following remarks.

1. Objections to the Claims

Claims 1-4, 6-8, 13-16, 18, 19, 21-24, 26 and 27 are objected to for containing reference numbers pertaining to the drawings. Although Applicant believes that it may refer to reference numerals in the claims (*see* MPEP § 608.01(m)), as requested by the Examiner, the claims have been amended to remove the reference numerals.

2. The Examiner's § 112 Rejections

Claims 5, 8, 17, 19, 25 and 27 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully but strenuously traversed in view of the above amendments.

The Examiner has indicated that the language "non-textile fabric" is unclear and appears to not be defined in the specification. Applicant has reviewed the specification and refers the Examiner to page 11, line 16-18, wherein Applicant points to the non-textile materials, referring to them as - - materials other than textile fabrics including nonwoven films, foams and the like.

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Applicant has amended claims 5, 8, 17, 19, 25 and 27 to more clearly articulate the claims in line with the specification by referring to foam, a nonwoven film or material other than a textile fabric. For these reasons, the amended claims are believed to now overcome the section 112 rejection.

Claims 1-8, 13-19 and 21-27 stand rejected under 35 U.S.C. 112, second paragraph as being indefinite. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner points out that while Applicant claims a “one-step process”, claims 1 and 13 appear to contain more than one step. Applicant’s invention, as pointed out in the specification, is an improvement over the prior processes. Applicant’s invention refers to a one-step curing method or single pass method, and in accordance with the Examiner’s suggestion, the claims have been amended to reference these features. In particular, dependent claims 1, 13, and 21 have been amended, as set forth above to more clearly distinguish the present invention by more particularly describing the method. No new matter has been introduced by the amendments and the claims are fully supported by the specification.

In addition, claims 5, 8, 17, 19, 25 and 27 have been amended to remove reference to the term “non-textile fabric”, as pointed out above.

Claim 21 has been amended to more particularly recite the single-pass method by further describing the solidifying step as *passing in a single pass through an oven, said laminated layer of microporous polymer sheeting membrane, said backing material, and liquid polymer*

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formulation layer. No new matter has been introduced by the amendment, and the claims are fully supported by the specification.

For the reasons set forth above, the Examiner's section 112 rejection should be withdrawn.

3. The Examiner's Section 102 Rejection of Claims 1, 3-5, 13, 15-17, 21 and 23-25 as Being Anticipated by Zehnder (US 6,235,662 B1)

Claims 1, 3-5, 13, 15-17, 21 and 23-25 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,235,662 B1 ("Zehnder"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner contends that Zehnder discloses a process comprising casting a liquid polymer formulation as a coating onto a carrier substrate, applying a microporous polymer sheeting membrane (expanded PTFE), either applying a backing material to the distal surface of the impregnated membrane or applying a lamination of microporous polymer sheeting membrane and backing material to the surface coating, allowing or causing the liquid polymer layer to impregnate the microporous polymer membrane, and solidifying the liquid polymer formulation. The Examiner refers to col. 3, line 40-57 of Zehnder. The Examiner also acknowledges Zehnder fails to recite the Applicant's use of the composite for a wound or scar but contends that the Zehnder composite could act that way.

Applicant's invention is not anticipated by nor is it obvious in view of the Zehnder reference.

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The Zehnder reference appears to disclose and state none other than what Applicant has described as the prior art processes. According to Zehnder, specifically, at col. 3, lines 55-56, the reference states "[t]he composites of the invention can be laminated to fabrics on one or both sides and the resulting material used to make waterproof but water-vapor permeable garments." The reference does not disclose laminating, in a single pass, as is done in the Applicant's present inventive method, the backing layer or fabric, a liquid polymer formulation as a coating onto a carrier substrate, a microporous polymer sheeting membrane where the liquid polymer layer is allowed to impregnate the microporous polymer membrane, where the result is that the backing material (or fabric) is applied to the distal surface of the impregnated membrane. Claim 1 of the Applicant's invention further provides that the composite sheet is formed by curing together in a single pass through an oven, said impregnated membrane and said backing material. Similarly, claim 21 recites the feature of a single pass through an oven for solidifying the liquid polymer formulation along with the backing and laminated layer of microporous polymer sheeting membrane. Similarly, claim 13 is also not taught, suggested or disclosed by Zehnder. Claim 13 provides that the composite sheet is formed by curing together in a single pass through an oven, said impregnated membrane and said backing material. The Zehnder reference relied on by the Examiner, fails to disclose or suggest the Applicant's inventive method as recited in the claims. The dependent claims, which depend from one of the independent claims, for the same reasons, also are not taught or disclosed by Zehnder.

Accordingly, Applicant respectfully traverses the rejections, and requests a withdrawal thereof.

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4. The Examiner's Section 103 Rejection of Claims 2, 7, 8, 14, 18, 19, 22, 26 and 27 as Being Obvious over Zehnder (US 6,235,662 B1) in View of Dillon (US 4,832,009)

Claims 2, 7, 8, 14, 18, 19, 22, 26 and 27 stand rejected under 35 U.S.C. 102(b) as being obvious over 6,235,662 B1 ("Zehnder") in view of US 4,832,009 ("Dillon"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner relies on Zehnder, as previously discussed above. The Examiner contends that Zehnder discusses adding silicones to the microporous substrate (col. 3, line 8). The Examiner acknowledges, however, the deficiencies of Zehnder, specifically, that Zehnder fails to disclose PDMS. The Examiner then asserts that since Dillon discloses applying PDMS to microporous ePTFE (col. 3, lines 9-25), it would have been obvious to combine these teachings.

First, for the same reasons set forth above, Zehnder fails to teach, suggest or disclose the Applicant's presently claimed invention. Even the further combination of Dillon still fails to disclose, or arrive at, the presently claimed invention. The single step method or single pass curing, as is now recited in the amended claims, distinguishes the present invention over the cited art.

For these reasons, and the reasons set forth above, the 103 rejection should be withdrawn.

5. The Examiner's Section 103 Rejection of Claims 5, 17 and 25 as Being Obvious over Zehnder (US 6,235,662 B1) in View of Cole (US 5,009,224)

Claims 5, 17 and 25 stand rejected under 35 U.S.C. 103 as being obvious over U.S. Patent 6,235,662 B1 ("Zehnder") in view of US 5,009,224 ("Cole"). This rejection is

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respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner relies on Zehnder, as previously discussed above. The Examiner contends that Zehnder fails to discuss providing a foam backing. The Examiner relies on Cole for its purported teaching of a wound dressing or bandage comprising a microporous substrate (col.7, lines 39-55). The Examiner argues that bandages with foam backings are known in the art to provide a thicker more comfortable and cushioning material.

Applicant's invention is not taught, suggested or disclosed for the same reasons set forth above as to why the Zehnder reference fails to teach, suggest or disclose the Applicant's presently claimed invention. Claims 5, 17 and 25 depend from independent claims 1, 13, and 21, respectively, and therefore the 103 rejection should be withdrawn.

6. The Examiner's Section 103 Rejection of Claim 6 as Being Obvious over Zehnder (US 6,235,662 B1) in View of Tse Tang (US 5,702,503)

Claim 6 stands rejected under 35 U.S.C. 103 as being obvious over U.S. Patent 6,235,662 B1 ("Zehnder") in view of US 5,702,503 ("Tse Tang"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner relies on Zehnder, as previously discussed above. The Examiner contends that Zehnder fails to teach or disclose exposure to a vacuum by means of a vacuum roller device as presently claimed. The Examiner relies on Tse Tang for its purported teaching of a vacuum

device for removal of residual water and solvents (col. 14, lines 38-56). The Examiner contends that Tse Tang teaches that a vacuum applied to a microporous composite to remove water and solvents is properly combinable with Zehnder. The Examiner contends that this would therefore speed up the processing times.

Applicant's invention is not taught, suggested or disclosed in view of Zehnder, alone, or whether combined with Tse Tang, as the Examiner proposes. First, for the reasons set forth above, Zehnder fails to teach, suggest or disclose the Applicant's present invention. Second, the Examiner relies on Tse Tsang claiming that Tse Tsang teaches and discloses a vacuum roller for removing residual water and solvents. However, this is not a disclosure of the Applicant's presently claimed method. As the Applicant's specification provides:

It was further found that the application of vacuum to the surface of the fabric 40 further improved the effectiveness of the new process. The vacuum was applied using a vacuum roller to the upper surface 35 of the textile fabric 40 prior to entry into the oven 60 (Fig. 6) to follow the serpentine and "S" curve path 70. It is believed that the application of vacuum in this fashion caused enough of the liquid PDMS 10a (Fig. 2) to migrate past the upper surface 25 of the IPN sheet 12 and into the bottom surface 45 of the fabric 40 as to provide a high quality bond 67 between the layers 40 and 10a.

* * *

The process of Example 1 was repeated but the arrangement of the unwind apparatuses was changed (Fig. 6) so that the ePTFE membrane 30 was pulled over the fabric 40 and both materials were brought into contact with the liquid PDMS coating 11 at the same time (Figure 6). This simplified the unwinding of the ePTFE membrane 30 which is very tension sensitive and subject to mechanical deformation. In addition, a vacuum roller 100 was placed between the lay-down point of the ePTFE/fabric and the entry of the oven 60. The active face of the vacuum

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roller 100 was deckled to a 12 inch (30 cm) width and a wraparound angle of approximately 180 degrees.

(Specification, p. 7, line 16 – p. 8, line 2; and Example 2.)

Contrary to the Examiner's suggestion, the Applicant's method employs a vacuum roller means to draw the liquid PDMS from the upper surface of the IPN sheet and into the bottom surface of the fabric. Thus, the application of the vacuum, as recited in method claim 6, is used to facilitate the adhesion of the fabric layer to the membrane.

Applicant's claimed method further provides that the vacuum step is performed "prior to solidification of the liquid polymer formulation." This is contrary to the teaching of Tse Tsang, which states that once the composite membrane is formed, it may optionally be passed through a vacuum roller. Thus, Tse Tang would appear to thus teach that one needs to form the composite, and then use a vacuum. Applicant relies on the vacuum in the method recited in claim 6, in order to form a composite which comprises the membrane, PDMS and fabric layer. Tse Tang would thus appear to suggest, if anything at all, using a vacuum, after the composite is formed. Applicant's claim states that the composite is not solidified until after the vacuum step.

In addition, the fact that Tse Tang teaches that the vacuum step is optional, would not provide a teaching for Applicant's invention where the vacuum is employed to enhance bonding of the fabric. Applicant's invention is attempting not to merely remove the liquid PDMS from the membrane layer, but rather, drawing the liquid into the fabric layer. If all Applicant did was follow the alleged teaching of the cited reference, the Applicant's invention would not be arrived at, since the teaching is to remove residual water and solvent, not draw the liquid PDMS into a fabric layer for bond enhancement.

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For the reasons set forth above distinguishing the invention over Zehnder, and for these additional reasons, claim 6 should be patentable.

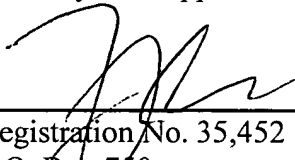
CONCLUSION

Applicant's invention is not taught, suggested or disclosed by the cited references relied on by the Examiner. Applicant's presently claimed invention should be patentable.

If necessary, an appropriate extension of time to respond is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required to Patent Office Deposit Account No. 05-0208.

Respectfully submitted,
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